FIG · 1

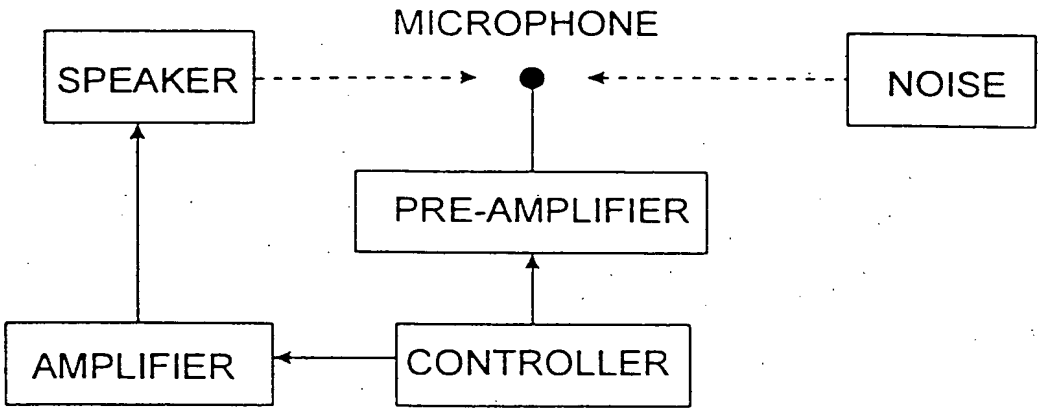

MICROPHONE
SPEAKER
NOISE
PRE-AMPLIFIER
AMPLIFIER
CONTROLLER

FIG · 2

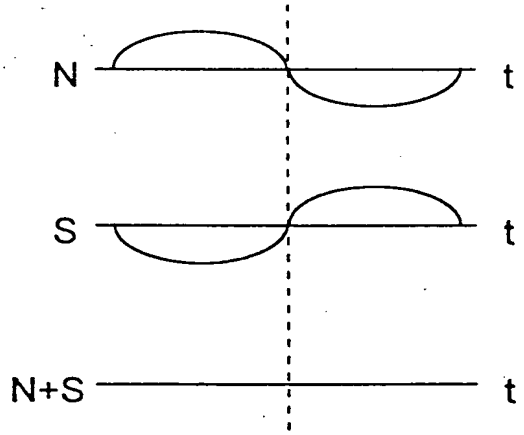

N
t
S
t
N+S
t

FIG · 3

PRIOR ART

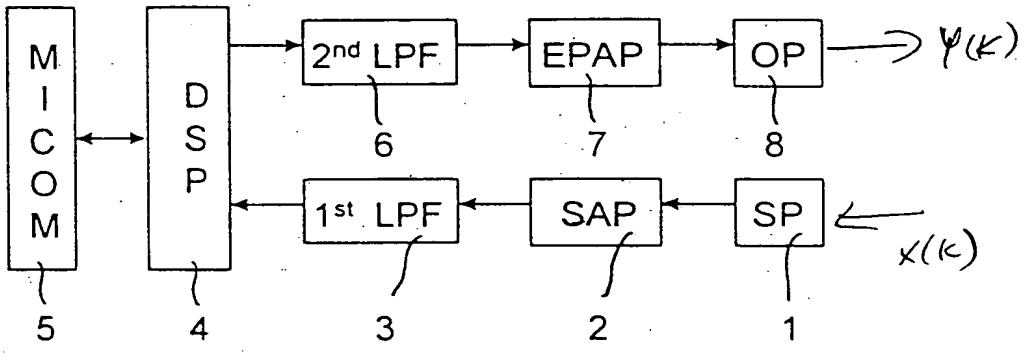



FIG · 4

PRIOR ART

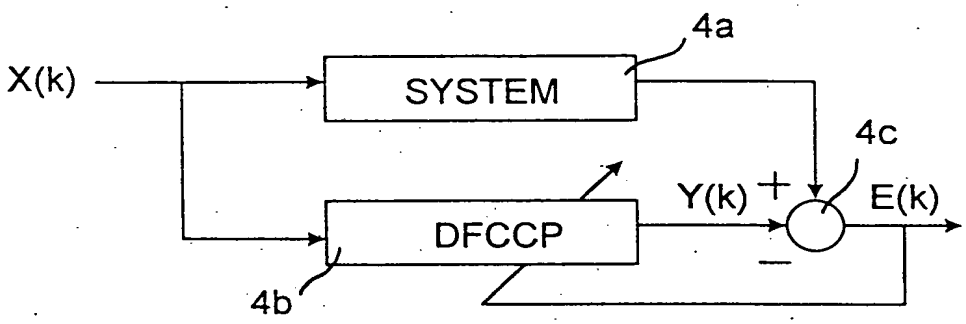


FIG · 5

PRIOR ART

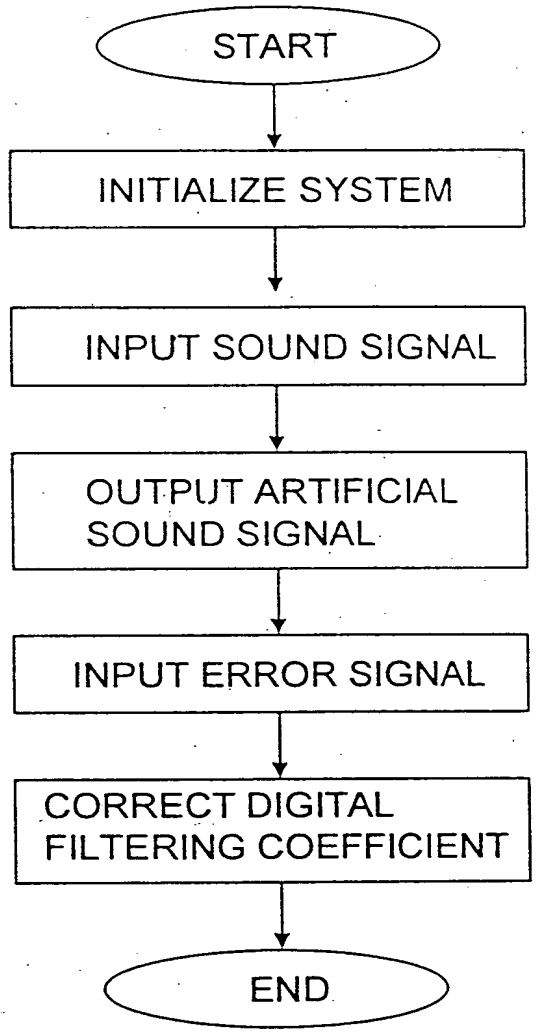


FIG . 6

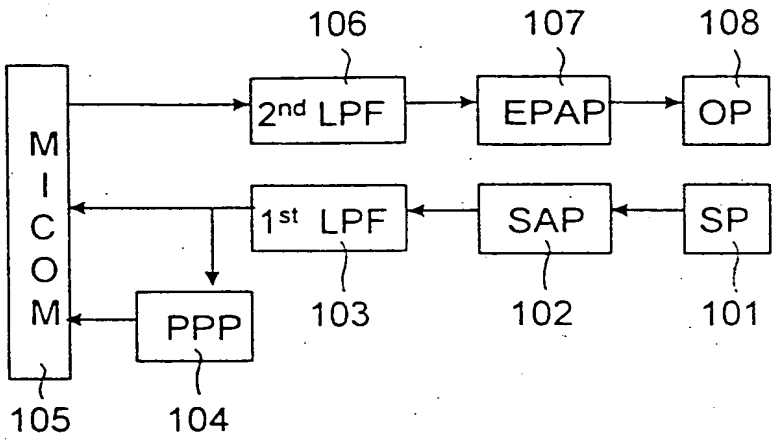

106
107
108
2nd LPF
EPAP
OP
MICOM
1st LPF
SAP
SP
PPP
103
102
101
105
104

FIG . 7

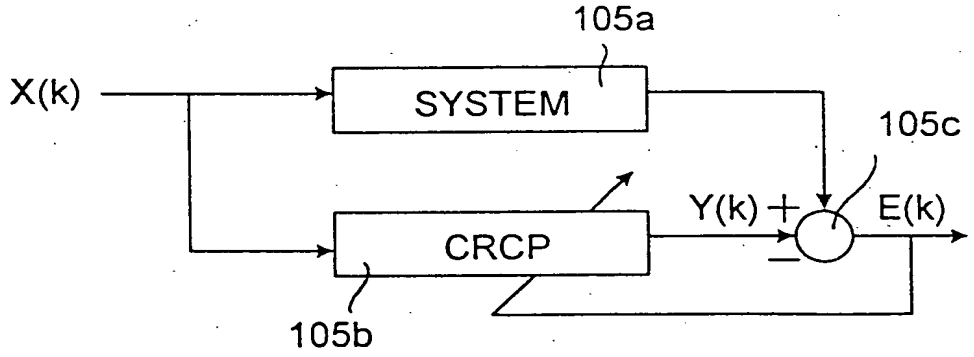

105a
X(k)
SYSTEM
105c
Y(k)
+
E(k)
CRCP
−
105b

FIG · 8

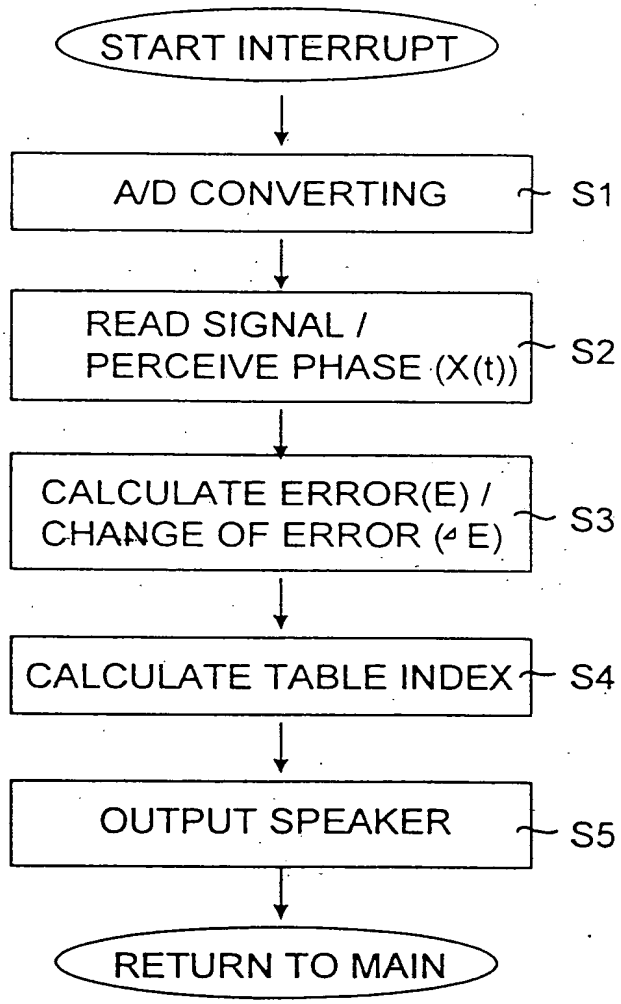
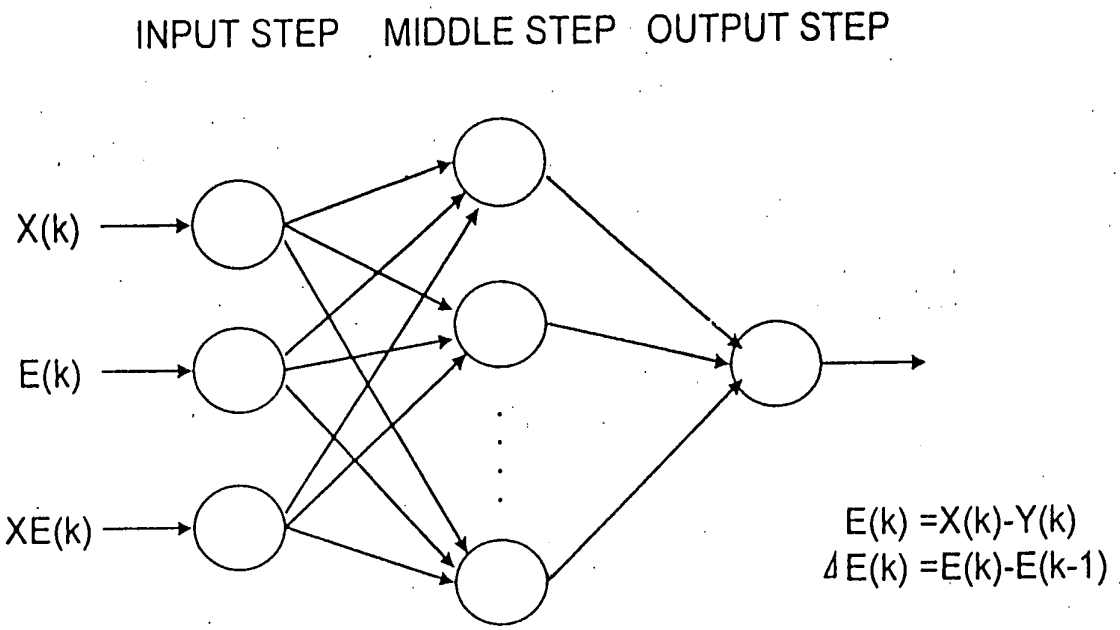

START INTERRUPT
A/D CONVERTING
S1
READ SIGNAL / PERCEIVE PHASE (X(t))
S2
CALCULATE ERROR(E) / CHANGE OF ERROR (⊿E)
S3
CALCULATE TABLE INDEX
S4
OUTPUT SPEAKER
S5
RETURN TO MAIN

FIG · 9


INPUT STEP
MIDDLE STEP
OUTPUT STEP
X(k)
E(k)
XE(k)
E(k) =X(k)-Y(k)
Δ E(k) =E(k)-E(k-1)

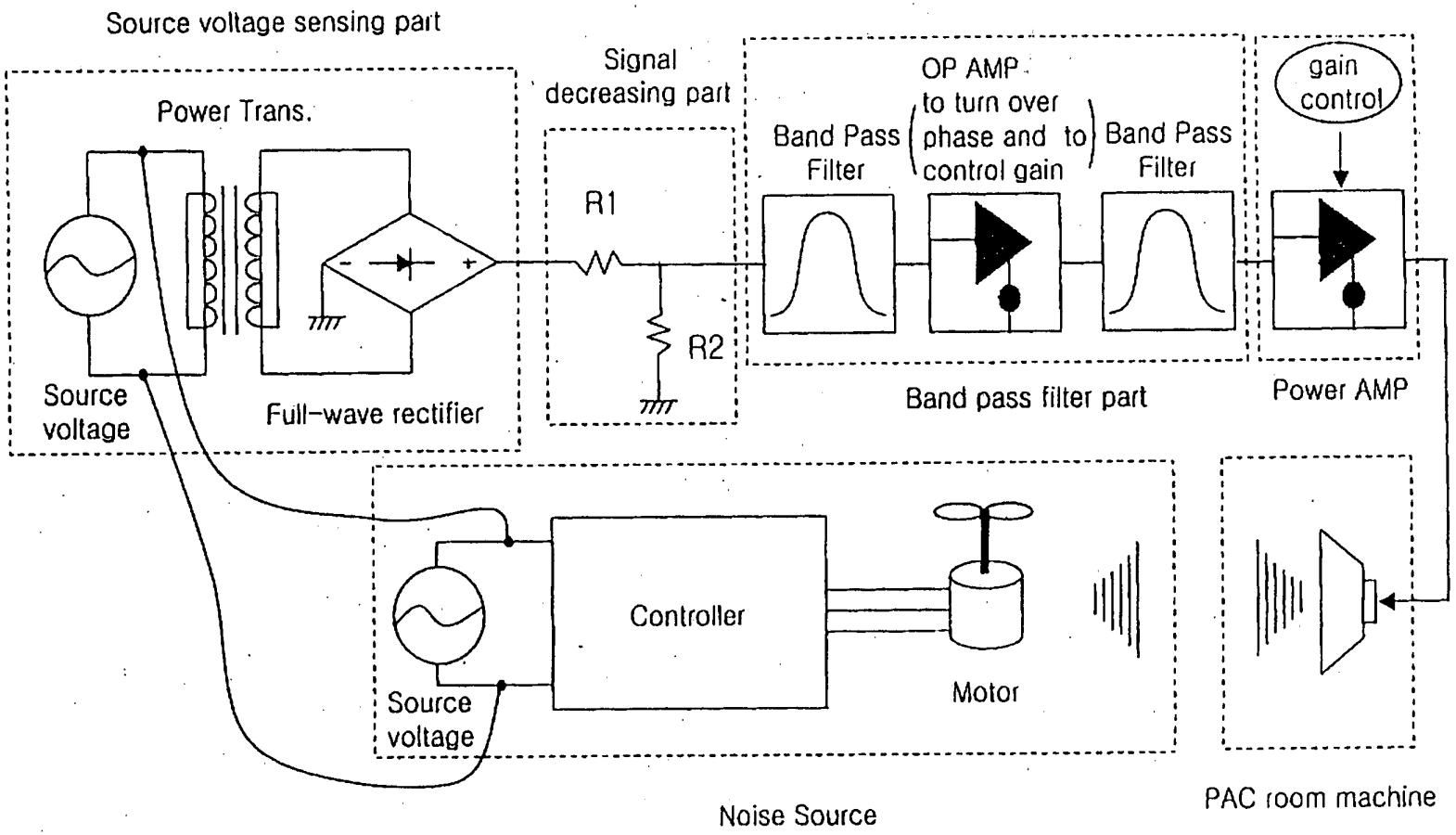

Source voltage sensing part
Power Trans.
Source voltage
Full-wave rectifier
Signal decreasing part
R1
R2
OP AMP to turn over phase and to control gain
Band Pass Filter
Band Pass Filter
Band pass filter part
gain control
Power AMP
Controller
Motor
Source voltage
Noise Source
PAC room machine

**Fig. 10**